

REMARKS

Applicant has carefully reviewed and considered the Office Action mailed on July 11, 2003, and the references cited therewith.

No claims are amended, claims 39-47 are cancelled, and no claims are added; as a result, claims 30, 35 and 37 are now pending in this application.

Drawings

As was discussed in the phone interview of August 19, 2003, the drawings presently do picture and describe the presently claimed features. See, e.g., angle 610 in Figure 6 and line 4 of page 10 which recites “. . .when angle 610 is equal to substantially 22.5 degrees. . .”.

§112 Rejection of the Claims

Claims 35, 40, 44 and 47 were rejected under 35 USC § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Applicant respectfully points out that support for the previously introduced amendments is present in the specification. More specifically, page 10 describes (referring to Figure 6) in the paragraph from line 15-24 how signal traces run at various angles depending in part on selection of angle 610.

More generally, the text of p. 9, ln. 12 through p. 10, ln. 23, discusses how traces are rotated based in part on configuration of degassing holes shown in Figure 6, and in part based on impedance variation. The axes about which the traces are rotated is described and illustrated, such as with respect to angle 610 in Figure 6.

Because the specification describes in detail how the traces are rotated, and gives examples accompanied by illustrations, applicant believes these pending claims are in condition for allowance.

§102 Rejection of the Claims

Claims 30 and 35 were rejected under 35 USC § 102(b) as being anticipated by Duxbury (U.S. 5,360,949).

Duxbury describes a printed circuit board in which pairs of conductive wires are supported by a flexible nonconductive sheet which is placed between two conductive ground meshes. The angle that the conductive wire traces take relative to the orientation of the conductive mesh is selected to vary the offset of mesh interconnection points from the conductive wires. The application further discusses that it may be adapted to a multilayer printed circuit board, and that the ground mesh may be replaced with a plurality of holes in the form of a matrix.

Duxbury first fails to consider an integrated circuit package, as is the subject of the present claims here rejected.

Duxbury also does not teach offsetting a second conductive layer having a second grid of holes from a first conductive layer having a first grid of holes. The description of Duxbury's Figure 4 clearly recites that "the upper mesh conductors 36 are parallel to the lower mesh conductors 38" (*see*, col. 4, ln. 36-37). Duxbury therefore does not teach offsetting first and second conductive layers having grids of holes offset with respect to one another.

Duxbury does recite that a mesh may in another embodiment be a conductive sheet with a plurality of holes as shown in Figure 7, but these holes are simply holes in a conductive mesh through which vias may be routed. Duxbury fails to degassing holes disposed within an integrated circuit package as are recited in claim 39 and its dependents. As previously discussed, Duxbury also fails to consider a second mesh having holes offset with respect to the first mesh.

Duxbury also fails to consider disposing its various elements in accordance with the relative coordinate systems now present in the amended claim 30 and its dependents.

Because Duxbury fails to teach an integrated circuit package, fails to teach offsetting first and second conductive layers having grids of holes offset with respect to one another, and fails to teach at least one further conductive signal trace rotated with respect to the holes of the first conductive layer's hole axis, applicant believes the claims as amended are in condition for allowance, and respectfully requests reexamination and allowance of the pending claims.

Claims 39-43 were rejected under 35 USC § 102(e) as being anticipated by Zu (U.S. 6,303,871).

Applicant has cancelled claims 39-43, and also has cancelled claims 44-47 objected to below, as applicant's assignee is also the assignee of the cited Zu reference.

§103 Rejection of the Claims

Claims 37 was rejected under 35 USC § 103(a) as being unpatentable over Duxbury in view of Tanahashi (U.S. 6,184,477).

Applicant believes that the discussion presented above is further applicable here, and incorporates the above discussion by reference. Further, because this claim depends from a base claim believed to be in condition for allowance, it is believed to be allowable as based on an allowable base claim. For these reasons, reexamination and allowance of this claim is respectfully requested.

Claims 44-47 were rejected under 35 USC § 103(a) as being unpatentable over Zu.

These claims have been cancelled as described above.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney ((612) 349-9581) to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743

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Date Sep 11 '03

By [Signature]
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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 11 day of September, 2003.

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